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L4 ANSWER 46 OF 52 CA COPYRIGHT 2003 ACS
AN 66:56644 CA
TI **Zinc**-containing inorganic **coating** materials
PA du Pont de Nemours, E. I., and Co.
SO **Neth. Appl.**, 11 pp.
CODEN: NAXXAN

DT Patent
LA Dutch
IC C04B
CC 42 (Coatings, Inks, and Related Products)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	NL 6604385		19661003		
PRAI	US		19650402		

AB Self-hardening Zn paints, that give H2O-resistant films, are prepd. with the aid of a stable Li2SiO3 binder, that is obtained from a colloid SiO2 sol of pH <4, from which Na and K ions are removed by ion exchange. Mixts. are prepd. contg. 0.9-5 wt. parts Zn powder (2-15 .mu.) per wt. part aq. Li2SiO3, that contains 15-35 wt. % SiO2, while the SiO2-Li2O **mole ratio** is 4:1-25:1. The most stable dispersions are obtained, when this ratio is 4:5:1-5:1, while at a ratio 7:1 the greatest H2O- and corrosion-resistance is obtained. After drying of the film 85-96% Zn is present. Zn may be replaced by Al, while pigments, thickeners, or corrosion-preventing compds. may be added. The Li2SiO3 is prepd. by mixing the Na and K-free SiO2 sol (Ludox HS or LS) with LiOH and peptization of the mixt. The Li2SiO3 consists of a mixt. of Li and **silicate** ions with ions, polymerization to varying degree, while the bigger units act like colloidal SiO2.

ST **COATING** INORG ZN CONTG; **ZINC** CONTG INORG
COATINGS; PAINTS ZN-CONTG WATER RESISTANT

IT **Coating** materials
(lithium silicates-**zinc**, water-resistant)

IT 7440-66-6, uses and miscellaneous
RL: USES (Uses)

(**coatings** of lithium **silicate** and, water-resistant)

IT 10102-24-6
RL: USES (Uses)

(**coatings** of **zinc** and, water-resista